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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,449	12/27/2005	Eiji Shiba	055053-0105	3547
22428 7590 11/19/2010 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER ZEMEL, IRINA SOPHIA	
			ART UNIT 1765	PAPER NUMBER
			MAIL DATE 11/19/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/562,449

**Applicant(s)**

SHIBA ET AL.

**Examiner**

Irina S. Zemel

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**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4 and 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of WO 02/14423 to Kuraray Co., (hereinafter "Kuraray") or JP 001-26663 to Sanwa Kako KK., (hereinafter "Sanwa") in combination with US Patent 5,110,842 to Uejikkoku et al., (hereinafter "Uejikkoku").

The disclosures of Kuraray and Sanwa are discussed in the previous office actions. As previously discussed, neither Kuraray nor Sanwa disclose addition of an ethylene/polar monomer copolymer to the compositions of their invention.

Addition of an ethylene polar monomer copolymer, including ethylene/methacrylic acid copolymer (E/EMMA) copolymers to compositions of either Sanwa or Kuraray would have been obvious from the disclosure of Uejikkoku, which disclosure expressly teaches that addition of various ethylene polar monomer copolymer, including EVA and ethylene/methacrylic acid copolymer (E/EMMA) to a polyolefin (including polypropylene and polyethylene copolymers) based foaming composition in the amounts corresponding to the claimed amounts results in improved tear strength of the foams, see, for example, col.2, lines 58-68 and examples of Uejikkoku. The reference expressly

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discloses that addition of such copolymer should be in the amount of 5-40 parts by weight, based on 100 parts by weight of the olefin copolymer (A).

Therefore, it would have been obvious to add anyone of the ethylene/polar monomer copolymer disclosed in Uejikkoku, including EVA or E/EMMA to compositions of Kyraray or Samwa to improve physical properties of compositions of Sanwa and Kuraray, including tensile strength of such compositions.

### ***Response to Arguments***

Applicant's arguments with respect to the rejection of claims over either one Kuraray or Sanwa in combination with Mitsui have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 8-30-2010 with respect to unexpected results exhibited by the compositions comprising E/EMMA copolymer have been fully considered but they are not persuasive. As discussed in the previous office action, the presence of an ethylene/ polar monomer copolymer does not bring unexpected results to the foamed product obtained from such compositions. As previously discussed, a marginal improvement in adhesion is clearly a cumulative results of adding EVA (in case of added EVA), and also believed to be the case when E/EMMA is added. In any event, there is no comparative example that shows the properties of E/EMMA so even if, the results are unexpected, which they are NOT, the results are no probative since there is no comparison with

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E/EMMA alone. It is also noted that the adhesion strength of compositions having an ethylene/polar monomer copolymer is comparable to the adhesion strength of the compositions not having such copolymers, and is inferior as compared to EVA alone.

Insofar as the allegedly unexpected improvement in tear strength by addition of E/EMMA copolymer, this arguments are not persuasive for several reasons. First, and most importantly, the results are not unexpected. As per teachings of Mitsui and newly cited Uejikkoku, it is quite expected that addition of an ethylene/polar monomer copolymer results in improved tear strength. Second, there is no data for E/EMMA alone, so it is not clear whether it is a cumulative result, and third of all, the showing of allegedly unexpected results are nowhere near to the scope of the claimed invention, etc.

The invention as claimed, therefore, is still considered to have been clearly obvious over the combined teachings of the cited prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/  
Primary Examiner, Art Unit 1765

Irina S. Zemel  
Primary Examiner  
Art Unit 1765

ISZ